

A New Species of *Mitra* from the Western Indian Ocean (Mollusca: Gastropoda)

BY

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(Plate 28)

IN MID-JULY OF 1962 I was sent a large and unusual specimen of *Mitra* for identification. The data with it and subsequent correspondence concerning it proved as interesting as the shell itself; it is *ex pisce*, collected off Durban, South Africa, by the same individual who has from time to time furnished, also *ex pisce*, such rare molluscan species as *Voluta (Alcithoe) ponsonbyi* E. A. SMITH, 1901, *V. (A.) africana* REEVE, 1856, *Cypraea (Bernaya) fultoni* SOWERBY, 1903 and others, mostly of unknown habitat. Along with some additional conchological rarities, the mitre was obtained in January 1962 by Mrs. Helen Boswell, who was at that time living in Johannesburg.

Unable to identify this unfamiliar mitrid from the literature and comparative material available to her, Mrs. Boswell forwarded it to Mr. S. P. Dance at the British Museum (Natural History), who some months later sent it on to me at Mrs. Boswell's suggestion. Mr. Dance's letter accompanying the shell stated that nothing like it existed in the collections at the British Museum, and that after a thorough search there he was now convinced it must be an undescribed species.

In September 1962 Mrs. Boswell had the opportunity to visit the British Museum personally, at which time she also carefully looked through the *Mitra* collection without being able to locate a specimen resembling her own, thus verifying Mr. Dance's earlier conclusion that it was probably an unknown species. Meanwhile, I had been searching through all the specialized literature on Mitridae available to me, as well as checking other collections — always with the same result. A few possibilities came to mind while I was studying the type figures of certain species unfamiliar to me; Mr. Dance very kindly rechecked these in the British Museum's type collection and eliminated them a second time, stating emphatically that they were quite different from Mrs. Boswell's shell.

Although they have done more work on this problem than I have, both Mrs. Boswell and Mr. Dance have requested that I describe the species, since it comes within the scope of my particular interest. We realize it is not ordinarily considered good malacological practice to describe a new species from a unique specimen, especially

a dead one from an unknown locality — but the fact that the incomparable mollusk collection at the British Museum, which probably houses at least three-fourths of the type material in Mitridae, has on two occasions been thoroughly searched for a similar species without success, and further, that nothing like it can be found in existing literature, make the deviation from the unwritten rule in this case seem justifiable. It therefore gives me a great deal of pleasure to describe the newly-discovered form as

Mitra (Mitra) boswellae J. CATE, spec. nov.

(See Plate 28, figures 1, 2)

Shell large (70.5 mm long, 24.1 in greatest diameter, 38.8 mm aperture length), smooth; apex white, slightly eroded; 7 post-nuclear whorls convex, shining; sutures impressed and slightly crenulated. Early whorls finely spirally puncto-striate; spiral punctations obsolete on last three whorls except immediately below the sutures, where 3 to 4 faint impressed lines may be seen.

Aperture longer than the spire; outer lip smooth, though chipped posteriorly and broken off at abapical end. Columella with four strong oblique folds and one weak fold abapically; columellar lip thin, translucent.

Color of shell generally rusty-brown, with pale mauve irregular patches and smooth, narrow spiral lines of a deeper rust-brown at more or less regular intervals. The brown lines coincide with some of the impressed punctate striae, except where these become obsolete; possibly in live-collected specimens all of the brown lines may be punctate. The aperture is a uniform medium beige color.

The type locality of *Mitra boswellae* is off Durban, Natal, southeast Africa (29° 51' So. Lat., 31° 00' E. Long.); however, when living specimens are found it may be necessary to designate a different type locality, more appropriate for this mollusk, rather than its predator fish.

The holotype has been deposited in the type collection of the South African Museum, Capetown, where it is catalogued as S. Afr. Mus. Reg. no. A 29799.

This unique shell seems to be in a fairly good state of

preservation, though without additional material for comparison it is impossible to know whether its color and pattern are typical of those in living animals, and whether the surface ornament may have become eroded through contact with the stomach fluids of the fish. There are two or three unidentified small barnacles and a minute coral growth within the abapical end of the aperture, which would indicate that the specimen may have been dead when ingested by the fish; it is not possible to tell how long it had been dead nor how long it was retained in the fish stomach — and both these circumstances could have an important influence on the condition of the specimen. The fishes generally acknowledged as predatory on the rare molluscan forms already mentioned are migratory species with relatively wide-ranging habits of travel; furthermore, the fishes themselves are rare enough that their usual migratory patterns have not been established and therefore no accurate surmise may be made as to where the mollusks were picked up.

There are only three species even remotely comparable to *Mitra boswellae* that are figured in the various monographs on Mitridae. These are *M. nubila* (GMELIN, 1791) (*M. versicolor* MARTYN, 1784), *M. nebulosa* REEVE, 1844 (non BRODERIP, 1836), and *M. bretteinghami* E. A. SMITH, 1906 (*M. propinqua* SOWERBY, 1874, non A. ADAMS, 1853). Mr. Dance has compared *M. boswellae* with the first two of these; his reply states "I have checked on *Mitra versicolor* MARTYN — figures and specimens so-labelled in B. M. Coll. — it is not the same as Mrs. B's shell and not really very similar either. It is not *M. nebulosa* BROD. either. In fact it's like nothing in our collections as far as I can see. As such a large shell would not be easily overlooked in collections or in the literature it would indicate a n. sp."

I compared *Mitra boswellae* with a fine example of *M. bretteinghami* in the collection of E. W. Ulrich of Long

Beach, California, and found it different from that species also, being less obese than *M. bretteinghami*, with a smoother and less flaring lip, and with a more patchy, map-like pattern, whereas *M. bretteinghami* has a wavy, strigate pattern.

I am honored by the compliments implicit in having been consulted regarding this problem, and am grateful to both Mrs. Boswell and to Mr. Dance for allowing me the privilege of collaborating with them.

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